

Remarks

In response to the Office Action dated April 20, 2007, Applicant respectfully requests reconsideration based on the above claim amendment and the following remarks. Applicant respectfully submits that the claims as presented are in condition for allowance.

Claim Rejections - 35 U.S.C. §103

In the Office Action, claims 1-5, 7-39, and 41-87 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Sharon (U.S. Pat. 6,137,782) in view of Wan (U.S. Pat. 6,529,475) and further in view of Messinger (US Pat. 6,687,750). The rejection of these claims is respectfully traversed.

Independent claim 1 specifies a method of monitoring a packet-switched network using traffic logs. The method includes: (a) creating a histogram file; (b) generating a traffic log at a first location within the network, the traffic log containing a plurality of values, the plurality of values including a network entry point, a network exit point of the packet, and a packet state, wherein the packet state includes a congestion state; (c) transferring the traffic log from the first location to a second location; (d) storing the traffic log generated by the network at the second location; (e) analyzing the stored traffic log to determine the time of creation of the traffic log and the network entry and exit points of the packet; and (f) updating the histogram file using at least the time of creation of the traffic log, at least the packet state and at least one of the entry and exit points of the packet, wherein the histogram file is utilized to monitor network conditions in near real-time enabling the detection and correction of network overloads and congestion at one of a network node and network node link before network customers are affected.

The Office Action asserts that Sharon describes most of the claim elements but concedes that Sharon fails to describe: a) that the packet state includes a congested state; b) creating a histogram file; c) analyzing the stored traffic log to determine the time of creation of the traffic log; d) updating the histogram file using at least the time of creation of the traffic log and e) that the histogram is utilized to monitor network conditions in near real time enabling the detection and correction of network overloads and congestion before network customers are affected.

The Office Action proceeds by asserting that Wan cures deficiency a) of Sharon, namely that Wan describes extracting Real Time Control Protocol from the stack and thereby determining the congestion in the network. However, the Office Action further concedes that the

combination of Sharon and Wan fails to describe: b) creating a histogram file; c) analyzing the stored traffic log to determine the time of creation of the traffic log; d) updating the histogram file using at least the time of creation of the traffic log and e) that the histogram is utilized to monitor network conditions in near real time enabling the detection and correction of network overloads and congestion before network customers are affected. The Office Action proceeds further by asserting that Messinger describes these remaining discrepancies b-e.

However, Applicant respectfully asserts that Wan fails to describe the subject matter asserted to Wan by the Office Action. Wan discusses the use of Real Time Control Protocol (“RTCP”) packets to monitor Quality of Service and distribute quality information to participants. Wan also explicitly states that RTCP packets may be used to build a congestion mechanism which monitors and analyzes aggregated RTCP information. RTCP packets themselves do NOT contain congestion information or indicators concerning a packet state that includes a “congested state”. (col. 6-9). RTCP packets merely provide bits of information concerning packet loss rate, average payload size and throughput that can be then aggregated and statistically analyzed by a computing device. (Col. 8, l. 5-20). Therefore, reading the claim as a whole, Wan does not describe the detection of a packet containing values that include a packet state, wherein the packet state includes a congested state since RTCP packets have no indication or value of a “packet state” or a “congested state”.

Further, Applicant respectfully asserts that Messinger also fails to describe the subject matter asserted to Messinger by the Office Action. Messinger discusses a network traffic visualization application which enables the rapid assimilation of substantial amounts of information involving the activities of various components. The information may be collected by one or more routers through which data passes as it transits a network. The information is stored and subsequently retrieved for display. The activity of the components is monitored and data is extracted by the application between a starting time and an ending time. The extracted data is then compiled into an information file and stored for display at stated times or at the request of a network administrator. The application is used for tracking unauthorized users or “hackers” who attempt to obtain access to one or more network computers. See Col. 1, line 55 through Col. 2, lines 18 and Col. 4, lines 41-62.

Messinger fails to describe analyzing the stored traffic log to determine the time of creation of the traffic log and the network entry and exit points of the packet. Messinger applies

to distributed computer systems comprising printers, computers, routers and the like that are interconnected. Network activity information relating to messages transmitted over the network is received from the various components and records of such are time stamped. Such data may include the amount of traffic into and out of a particular component. However, Messinger does not describe determining the *network entry and exit points of a packet*.

Further, Messinger fails to describe the utilization of a histogram file to monitor network conditions in near real-time enabling the detection and correction of network overloads and congestion at one of a network node and network node link before network customers are affected. In particular, as discussed above, Messinger discusses that extracted data is compiled into an information file after a network monitoring interval and then subsequently displayed. Thus, Messinger does not discuss using a histogram file to monitor network conditions in near real-time as the network conditions reflected in the information file of Messinger have already been monitored and extracted once the file is displayed to a user (e.g., and administrator). Thus, as discussed in Messinger, the administrator must wait until after the monitoring has been concluded, must wait until after the collected information has been compiled into a file, and then must wait until the compiled file has been displayed to a user (at one of a stated time or upon request). Thus, it appears that Messinger does not disclose near real-time monitoring.

Based on the foregoing, at least Wan and Messinger fail to describe the subject matter relied upon by the Office Action. Therefore, Wan and Messinger fail to cure the conceded deficiencies of Sharon. As such, the combination of Sharon, Wan and Messinger fails to disclose each of the features specified in amended independent claim 1. Therefore, claim 1 is allowable and the rejection of this claim should be withdrawn. Independent claims 14, 25, 36, 43, 49, 60, 69, 78, and 84 specify similar features as amended independent claim 1 and are thus allowable for at least the same reasons. Dependent claims 2-5, 7-13, 15-24, 26-35, 37-39, 41-42, 44-48, 50-52, 54-59, 61-68, 70-77, 79-83, and 85-87 are also allowable for least the same reasons as independent claims 1, 14, 25, 36, 43, 49, 60, 69, 78, and 84 from which they depend. Accordingly, the rejection of claims 1-5, 7-39, 41-52, and 54-84 should be withdrawn.

Conclusion

In view of the foregoing amendments and remarks, this application is now in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after

this amendment, that the application is not in condition for allowance, the Examiner is invited to call the Applicants' attorney at the number listed below.

No additional fees are believed due. However, please charge any additional fees or credit any overpayment to Deposit Account No. 50-3025.

Respectfully submitted,

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